Abstract of the Disclosure

An improved vector error diffusion (VED) method employable in cycles with respect to a bi-tonal color printing engine which prints bi-tonal color images in a device output color space. The method includes (a) acquiring input color-image data which is characterized with an input color space, (b) processing, with available pre-established VED accumulated error data, such input data to produce a VED-processed input color-image data stream, (c) from such VED-processed input color-image data stream, creating, without employing interpolation, a VED-processed output color-image data stream which is characterized by the mentioned device output color space, and which is suitable for delivery to and use by the mentioned printing engine, and (d) changing, as appropriate for the next cycle, the VED accumulated error data which will be employed in that next cycle as pre-established VED accumulated error data. The step of creating includes employing, in addition to luminance-value thresholding to declare certain colors to be white, a color data palette which contains solely (1) a set of device output-color-space pixel values based upon spectrophotometric evaluated actual output print engine performance, and (2) three fictional device output-color-space values which lie intermediate the primary output-color-space values and white.